



Global Year Against Pain in Women

real women, real pain

Differences in Pain between Women and Men

Sex differences in pain: the evidence

- Women generally report experiencing more recurrent pain, more severe pain and longer lasting pain than men
- Evidence for sex differences in pain is wide ranging, and includes basic science, epidemiology and clinical research
- For example, experimental studies show that women have lower pain thresholds and tolerance to a range of pain stimuli when compared to men

Prevalence of painful conditions in men and women

- There are sex differences in the prevalence rates for some painful conditions
- There are more painful conditions where there is greater female prevalence than male prevalence
- Examples of painful conditions where there is greater female prevalence include fibromyalgia, irritable bowel syndrome, temporomandibular disorder, rheumatoid arthritis and osteoarthritis, migraine headache with aura
- Examples of painful conditions where there is greater male prevalence include cluster headache, coronary heart disease, gout, ankylosing spondylitis, duodenal ulcer, pancreatic disease

Other factors impact on sex differences in pain experience

- Pain experiences vary considerably within the sexes as well
- Changes in sex hormones have been found to moderate pain (e.g., menstrual cycle, pregnancy)
- Sex differences in pain can vary across the lifespan. Many of the observed gender differences in pain prevalence (i.e. headache, abdominal and visceral pain) appear to reduce beyond the reproductive years.
- Sex differences in pain can vary across different cultures as well

Sex differences in pain treatment

- Sex differences in analgesia exist
- There are sex differences in the side effects associated with drugs, including analgesics
- Sex differences in non-pharmacological chronic pain treatments have also been found

Reasons why men and women differ in pain and analgesia

- Biological mechanisms include sex hormones, genetics, and anatomical differences. Some of these biological factors (i.e. gonadal hormones) become less apparent in the post-menopausal years.
- Psychosocial influences include emotion (e.g., anxiety, depression), coping strategies, gender roles, health behaviors and use of health care services

What needs to be done?

- Sex differences should be considered in the investigation of pain
- Raise awareness of the similarities and differences between the sexes when considering pain and analgesia
- Greater understanding of the different health needs of men and women

References:

- Holdcroft A, Berkley KJ. Sex and gender differences in pain. In: Wall and Melzack's Textbook of Pain (5th ed.), McMahon SB & Koltzenberg M. (Eds). Edinburgh, UK: Elsevier, 2005; 1181–1197.
- Fillingim, R. (Ed). Sex, gender and pain. Seattle: IASP Press. 2000
- Fillingim RB, Gear RW. Sex differences in opioid analgesia: Clinical and experimental findings. *European Journal of Pain* 2004; 8: 413-425.
- Gagliese L, Fillingim RB. Age and sex interactions in the experience of pain. *XX vs. XY: The International Journal of Sex Differences in the Study of Health, Disease and Aging* 2003; 1: 124-131.
- LeResche L. Gender considerations in the epidemiology of chronic pain. In: *Epidemiology of pain*, Combie I. K. (Ed). Seattle: IASP Press, 1999; 43-52.
- Unruh AM. Gender variations in clinical pain experience. *Pain* 1996; 65:123-167.